

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A composite material ~~comprised of~~ comprising:  
a plurality of beads having electrical excitation zone-treated surfaces, said  
~~adhesive coated~~ beads having average diameters between about 1 and about 10 mm,  
wherein and of which  
at least 50 percent of said beads are at least 50 percent coated with an adhesive,  
and wherein  
a cured form of said adhesive has a hardness ranging from about Shore A 20 to  
about Shore A 95 and is used in a quantity such that it represents between about 20  
and about 80 weight percent of the composite material ~~and thereby serving to create a~~  
~~system of void spaces that constitutes from about 10 to about 40 volume percent the~~  
~~total volume of said composite material.~~
2. (Original) The composite material of claim 1 wherein the adhesive coated  
beads have average diameters between about 1 and about 4 mm.
3. (Original) The composite material of claim 1 wherein said beads are  
inelastic.
4. (Original) The composite material of claim 1 wherein said beads are elastic.
5. (Original) The composite material of claim 1 wherein said beads are made of  
polymeric materials selected from the group consisting of polyethylene, propylene and  
ethyl propylene copolymer.
6. (Currently Amended) The composite material of claim 1 wherein said beads  
and said adhesive create a system of void spaces that constitutes from about 10 to  
about 40 volume percent of the total volume of said composite material and is  
substantially comprised of substantially regularly distributed void spaces.

7. (Original) The composite material of claim 1 wherein the beads have diameters ranging from about 1 mm to about 4 mm.
8. (Original) The composite material of claim 1 wherein said beads are solid.
9. (Original) The composite material of claim 1 wherein said beads are hollow.
10. (Original) The composite material of claim 1 wherein said beads are made of a ceramic material.
11. (Original) The composite material of claim 1 wherein said beads are made from a glass material.
12. (Original) The composite material of claim 1 wherein said beads are made of a plastic material.
13. (Original) The composite material of claim 1 wherein the beads have one or more holes passing through their bodies.
14. (Original) The composite material of claim 1 wherein said beads are made of a thermosetting material.
15. (Original) The composite material of claim 1 wherein said beads are made of a thermoplastic material.
16. (Original) The composite material of claim 1 wherein the adhesive is made from a two part resin.
17. (Original) The composite material of claim 1 wherein the adhesive is made from a thermosetting synthetic resin.

18. (Original) The composite material of claim 1 wherein the adhesive is made from a thermoplastic synthetic material.

19. (Original) The composite material of claim 1 wherein said beads are of different sizes.

20. (Original) The composite material of claim 1 wherein said beads are comprised of a mixture of different kinds of beads.

21. (Original) The composite material of claim 1 wherein said beads are coated with a coupling agent to promote bead/adhesive bonding.

22. (Original) The composite material of claim 1 wherein said beads are electrical excitation zone-treated more than once to accomplish more than one kind of treatment.

23. (Original) The composite material of claim 1 wherein said beads are coated with a polymeric material by the action of an electrical excitation zone treatment.

24. (Original) The composite material of claim 1 wherein said beads are spherical.

25. (Original) The composite material of claim 1 wherein said beads are ellipsoid.

26. (Original) The composite material of claim 1 wherein said beads are made of different polymeric materials.

27. (Previously Presented) The composite material of claim 1 wherein said material is placed in a cloth casing.

28. (Previously Presented) The composite material of claim 1 wherein said material is placed in a net casing.

29. (Original) The composite material of 1 wherein said material is used in conjunction with a hard plastic, outer shell.

30. (Original) The composite material of claim 1 wherein at least 50 percent of the beads are at least 80 percent covered by the adhesive.

31. (Canceled).

32. (Currently Amended) A water permeable, composite construction material comprised of comprising:

a plurality of beads having electrical excitation zone treated surfaces, said adhesive coated beads having average diameters between about 1 and about 10 mm, and wherein and of which

at least 50 percent of said beads are at least 50 percent coated with an adhesive, and wherein

a cured form of said adhesive has a hardness ranging from about Shore A 20 to about Shore A 95 and is used in a quantity such that it represents between about 20 and about 80 weight percent of the construction padding material and thereby serving to create a system of void space that constitutes from about 10 to about 40 volume percent the total volume of said water permeable, composite construction material.

33. (Currently Amended) A breathable, ~~bead/adhesive/void space~~ padding material, said material being comprised of comprising:

a plurality of beads having electrical excitation zone treated surfaces, said  
adhesive coated beads having average diameters between about 1 and about 10 mm,  
and wherein and of which

at least 50 percent of said beads are at least 50 percent coated with an adhesive  
and wherein a cured form of said adhesive has a hardness ranging from about Shore A  
[[a]] 20 to about Shore A 95 and is used in a quantity such that it represents between  
about 20 and about 80 weight percent of the padding material and ~~thereby serving to~~  
~~create a system of void spaces that constitutes from about 10 to about 40 volume~~  
~~percent the total volume of said padding material.~~

34 - 35. (Canceled).

36. (New) The composite material of claim 1 wherein said cured form of said  
adhesive has a hardness ranging from about Shore A 25 to about Shore A 95.

37. (New) The construction material of claim 32 wherein said cured form of  
said adhesive has a hardness ranging from about Shore A 25 to about Shore A 95.

38. (New) The padding material of claim 33 wherein said cured form of said  
adhesive has a hardness ranging from about Shore A 25 to about Shore A 95.